

# TQM Implementation in Thailand

27 March, 2001

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## 1. Introduction

TQM Project in Thailand is one of the activities organized in ASEAN-Japan TQM Project in 2nd Phase which is successive to TQM Project in 1st Phase started in FY1995 to FY1999 for 5 years.

TISI is representative authority to administrate the TQM Project on behalf of Thailand.

The development objective of the TQM dissemination is to improve management of enterprises, local authorities and other institutions through the implementation of Total Quality Management systems. This will generate an excellent impact on the quality of products and services and on competitiveness of enterprises and is seen as one of the highest priorities by TISI.

As economies become increasingly borderless and businesses become more internationalized, companies are expected to take a global perspective to supply products and services that would meet the needs of variety of customers. They have to produce goods that are competitive in price and quality both in domestic and international markets. Total Quality Management (TQM) if actively and effectively implemented is an effective method for producing economically and effectively the quality of goods and services that satisfy the customers' needs. The effective implementation of TQM activities is one of the main reasons why Japanese industries are able to produce goods and services that are competitive in the world market.

Total Quality Management (TQM) is recognized as one of the measures most effective for improving quality. TQM has been widely implemented in Japan resulting to high appreciation of the Japanese products in the international markets. The theorists outside of Japan, such as Deming, Juran, and Feigenbaum, have made very valuable contributions to the early quality movement in Japan. However, a core of leading Japanese authorities in quality, including Professors Ishikawa, Shingo, Kondo, Taguchi, Kume and Kano- to name a few ensured that the development and implementation of TQM would be most widespread in the nation of Japan. The disciplined application of these principles allowed Japanese industries evolve to the point that by the 1970s "Made in Japan" signaled that goods are of highest quality and at competitive price.

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## 2. TQM Implementation Processes

One important aspects of this Project are the provision of 21 TQM Handbooks to be used by CEO, managers and staff in small and medium sized enterprises. These 21 TQM Handbooks span a comprehensive range of subjects designed to assist small and medium enterprises in their drive to improve all aspects of operations. These Handbooks focus on specific shop-floor activities, such as Quality Assurance, Facilities Management, and Cleaning, to systems-wide analytical improvement tools such as Statistical Methods, Standardization, and Measurement Management. Other Handbooks focus on critical issues affecting top management such as Policy Management, and Handbooks dedicated to the strategic issues of CEOs and Managers.

Our TQM is a practical tool supported by the philosophy of continuous improvement with introduction of technical know-how generated by accumulated experiences in Japanese Industries for long time.

### (1) Check Sheets for TQM Diagnosis:

In order to implement TQM effectively for a diagnosed company or participant, it is important to identify problems which are obstacles to promotion of TQM before starting to implement TQM and then take proper actions for improvement based on the identified problems.

These materials have been prepared as Check Sheets to be useful for identifying problems and helpful for giving clear shape to an action for improvement.

The Check Sheet are composed of 21 main items from the point of view of applying TQM.

Each of the main item has 5 sub-check items which are divided into 5 ranks. Level 1 is the lowest and level 5 is the highest level. Each sub-check item has 5 check points to be diagnosed from various points of view of quality control to identify what kind of problems the diagnosed company has and in which level the company is located.

Therefore, there are 525 check points in total available.

The diagnosis is recommended to be conducted according to the Check Sheets item by item through interview with person (s) in charge and on site at factory survey. All 525 check points are not necessarily required for diagnosing the company, because diagnostician (s) will be able to indirectly evaluate even non-diagnosed items and check points by data and information collected from diagnosed items.

Improvement activities based on the result of the diagnosis will contribute to further improvement by implementation of TQM in the company.

### (2) TQM Handbooks:

The Handbooks were prepared to facilitate the understanding of the Check Sheets and to be utilized as a tool for technology transfer of TQM. Though there are many variations of TQM, regrettably supposing to generate some confusion in understanding TQM, the TQM Handbook is the formal and orthodox methodology of TQM with no particular bias. The purpose of the Handbooks is to be useful as standardized instruction material by the instructors to minimize differences or variation on their methodologies which may happen unavoidably depending on instructors' policy, if they will follow the Handbook during TQM instruction.

The concept of TQM is uniformly established base on the long experience and actual examples of Japanese industries which were gathered, and made available for the use of different types of industries in Japan. The Handbooks were edited to explain in detail how to implement each checkpoint in sub-check item in the main item of the Check Sheets. One of the significant characteristics of the Handbook is that each section corresponds to a Check Sheet that explains through a specific example in order to understand the contents correctly and implement TQM being applied on site practically. They will be able to implement TQM preferably starting from lowest level to rather high level, gradually in a level suitable for their capability/requirement depending on their priority and needs. They can identify in which level they are located regarding implementation of TQM, which will accordingly make them challenge to implement TQM in higher level.

It is reminded that awareness of TQM and implementation of TQM are of different issue. TQM is totally meaningless if it has not been implemented at site even if they are fully aware of TQM theoretically. The more you implement TQM, the more benefit of TQM you will enjoy.

### 3. 21 TQM Handbooks

#### (1) 21 Handbooks:

NO.	TITLE	NO.	TITLE
1	CEO	11	PROCESS CONTROL
2	MANAGER	12	MANAGEMENT OF FACILITY AND EQUIPMENT
3	COMMON EMPLOYEES	13	MEASUREMENT CONTROL
4	POLICY MANAGEMENT	14	INSPECTION
5	STANDARDIZATION	15	EDUCATION AND TRAINING
6	DAILY MANAGEMENT	16	EXTERNAL SUPPLIER-PURCHASING
7	QC CIRCLE	17	PRODUCTION CONTROL

8	PROBLEM SOLVING	18	DISPOSAL & PROPER ARRANGEMENT
9	STATISTIC METHOD	19	CLEANING, CLEANLINESS & ENVIRONMENT
10	SAFETY CONTROL	20	TECHNOLOGY DEVELOPMENT AND DESIGN MANAGEMENT
		21	AFTER-SALE SERVICE

**(2) Contents and Summary of each Handbooks:**

**HANDBOOK 1 - CHIEF EXECUTIVE OFFICER (CEO)**

**1. Chief Executive Officer (CEO)**

- 1.1 Right understanding of the status quo of the company
- 1.2 Management policy on customers and market fields quality; response to needs and claims
- 1.3 Clarification of quality policy; implementation of quality improvement activities
- 1.4 Systematic/organizational implementation of quality control
- 1.5 Effective implementation of PDCA (Plan, Do, Check, Action) cycles in management

**Summary;**

CEO and Management prepares a long-term business policy and annual plan and should clarify the basic attitude and concrete policy against the product quality required by customers. It is also necessary that the policy should be clarified to managers including all employees and other participants.

As the business environment rapidly changes and the competitive edge is required in world wide, the management is required to improve the market quality and to understand the needs of customers as well as accomplishing customer satisfaction.

**HANDBOOK 2 - MANAGER**

**2. Manager**

- 2.1 Managers' understanding of their role and duties (department and section heads)
- 2.2 Giving clear instructions to subordinates, and understanding the status quo
- 2.3 Analysis of deficiencies and proper instructions
- 2.4 Complete transfer of departmental policy; improvement of teamwork in the

working environment

## 2.5 Training of subordinates; activation of a working environment

Summary;

Manager should prepare targets and planning of own department in accordance with the long-term business policy and annual plan and should proceed securely. Manager is fully responsible to perform TQM. Manager should impose the duty of reporting on work progress and on the results of work to the subordinate, but should carry out their managerial responsibilities by providing guidance and instruction. Manager securely clarifies possible causes and takes necessary actions to prevent recurrence of nonconformity. It is also important that manager should always try to reorganize and activate the workplace by raising human resources and by secure instructions to subordinates.

## HANDBOOK 3 - COMMON EMPLOYEES

### 3. Employees (Questions put to managers)

- 3.1 Working attitude
- 3.2 Comprehension of standards and observance of rules
- 3.3 Improvement of technical and skill levels
- 3.4 QC Circle activities and improvement activities
- 3.5 Willingness to make quality improvements

Summary;

To continuously expand business, it is important to improve the skill of employees, to bring about active workplace, to compete self-development and to carry out business activities including QC circles by all employees. Managers should take the initiative in creating the vital organization and cheerful workplace. This paragraph specifies necessary basic items that are required for managers to raise employees and that are required for employees to improve their skill and responsibilities.

## HANDBOOK 4 - POLICY MANAGEMENT

### 4. Management by Policy

- 4.1 Basic concept of Management, Management policy, Mid/long-term plans
- 4.2 Enforcement of annual departmental policy
- 4.3 Clarification of the policy development system
- 4.4 Coordination among departmental policies; development of human resources

- 4.5 Implementation of the PDCA (plan, do, check, and action) cycles in the core part of the company

Summary;

The most important task to a company is to indicate its policy and future course based on its strategy to all the employees so as to build up a group with full of vitality. A middle or long-term management plan is formulated according to the policy indicated by the head of the company. Based on the management plan, each section/department of the company draws up its own middle or long-term plan. Each section/department subsequently makes its annual detailed plan, sets up specific target figures, and carries them out.

## HANDBOOK 5 - STANDARDIZATION

### 5. Standardization

- 5.1 Recognition of standardization activities
- 5.2 Work standards
- 5.3 Hierarchy of standards
- 5.4 Corporate organization for promotion of standardization
- 5.5 Job improvement through standardization activities

Summary;

Standardization within a company is a strong tool that enables any employee and staff including indirect department to perform correct operations efficiently making less mistakes, and in particular it is used as a management tool indispensable to daily routine work. It is required to make all employees and staff fully understand standardization by establishing systems for standardization, preparing standardization manuals and raising awareness of standardization in all sections/departments from development/designing of products to servicing/handling of non-conformity and defective conditions.

## HANDBOOK 6 - DAILY MANAGEMENT

### 6. Daily management

- 6.1 Responsibility for routine control
- 6.2 Observance of standards by managers
- 6.3 Clarification of items to be controlled; prevention of recurring abnormalities
- 6.4 Visual control of major items and control of resultant revisions

## 6.5 Delegation of authority, and self-control systems in workplace groups

Summary;

In order to maintain or improve quality of product, it is necessary to designate workers in charge of each work-site and of each process and make them perform adequate operations in accordance with standards concerned. Managers perform operations for which they take responsibility without fail, transfer their responsibilities and rights, and give working instructions to their subordinates. Workers perform operations with reliability according to designated daily working instructions, control operations in each process, keep a record, and give an accurate report. The workers should constantly improve their skills by education and training.

## HANDBOOK 7 - QC CIRCLE

### 7. QC circle

- 7.1 Purpose and significance of QC Circle activities
- 7.2 Implementation of QC Circle activities
- 7.3 Structure for promoting QC Circle activities
- 7.4 Enhancing QC Circle activities
- 7.5 QC Circle activities as a component of TQM

Summary;

The QC circle activities in which all the employees have to participate are the core of TQM, and play a major role in creating a lively atmosphere of a work-site. Factors to make the QC activities successful include establishment of a system to promote the activities, selection of persons responsible for promotion and leaders, opening of a secretariat, and specification of the secretariat's role. It is also necessary to develop the activities into company wide ones by positively asking middle managers for participation, and holding meetings and exchanges with other circles. Besides, it is required to develop employees who can improve themselves spontaneously by encouraging and motivating them through implementation of their improvement idea and presentation of their achievements in the activities at site.

## HANDBOOK 8 - PROBLEM SOLVING

### 8. Problem solving

- 8.1 Information on abnormalities and responsibility for quality assurance
- 8.2 Procedure for dealing with abnormality
- 8.3 Scientific solution of existing issues

The company generally completes design/development on schedule and does not encounter problems with quality or cost after completion of drawings. The company is a global leader (in its particular field of technology/in technological innovations).

Summary;

The development of new technology and enhancement of design management are very important subject for the company on which CEO needs to have the full understanding. It is the very big issues for the company to organize the development system of new product by giving his or her design personnel the full scale of responsibility and authority as well as maximum incentives and providing good condition for smooth operation of job. In order to catch the customer satisfaction correctly and timely deliver the new products which meet customer satisfaction into the market, the effective development of high reliable products should be made by establishing the development system, preparing suitable program, making the design criteria and parts standard for common use, and implementing the Design Review systematically.

## HANDBOOK 21 - AFTER-SALES SERVICE

### 21. After-Sales Service

- 21.1 The company merely sells products, paying no attention to after-sales service.
- 21.2 The company provides after-sales service, but only to the extent of supplying maintenance parts to their service agents/dealers. The company views after-sales service as merely repairs, and does not handle claims.
- 21.3 The company has established a service department and systematically manages service centers. The company retains an adequate number of service engineers, prepares a service manual, and manages maintenance parts.
- 21.4 Does the company evaluate service engineers' skills and the turnover rate for maintenance parts in stock? Has the company used the results of such evaluations to make improvements?
- 21.5 The company has used the quality data generated by after-sales service to improve planning, design, manufacturing, and sales, as well as after-sales service. The company has a well-organized system in place for managing initial liquidity.

Summary;

After-Sales Service is one of the major activities in terms of quality assurance before and after marketing products. It is one side of contracting activities for the corporate growth and sales



volume expansion of which importance should be well recognized. CEO should understand the importance of After-Sale Service by himself or herself, and try to enhance the reliability of After-Sale Service activities for products delivered. In order to achieve this enhancement, the substantial review is essential in establishing the organizational system, bringing up the personnel of high technical ability, completing the guarantee as well as the quality assurance system, and preparing service material, for example service manual, service catalog, service information etc.

It is fundamental management goal to meet the maximum satisfaction of customers by evaluating the reliability of After-Sale Service in competitive approach.

#### REFERENCES:

##### 1. Diagnosis Levels;

###### Level 1 (complete ignorance)

No understanding of what management or control is. The company's business will founder soon or later if this situation continues.

###### Level 2 (slight knowledge)

The business is being managed after a fashion, but activities are only being run on a day-to-day basis. The business will not continue to grow unless changes are made.

###### Level 3 (increasing knowledge)

The company is being run neither particularly well nor particularly badly. It could fairly easily be made much more competitive by means of vigorous quality improvement campaign.

###### Level 4 (deep knowledge)

The company is being managed fairly well. It already has the ability to raise the standard of its operation to higher level if it continues its effort.

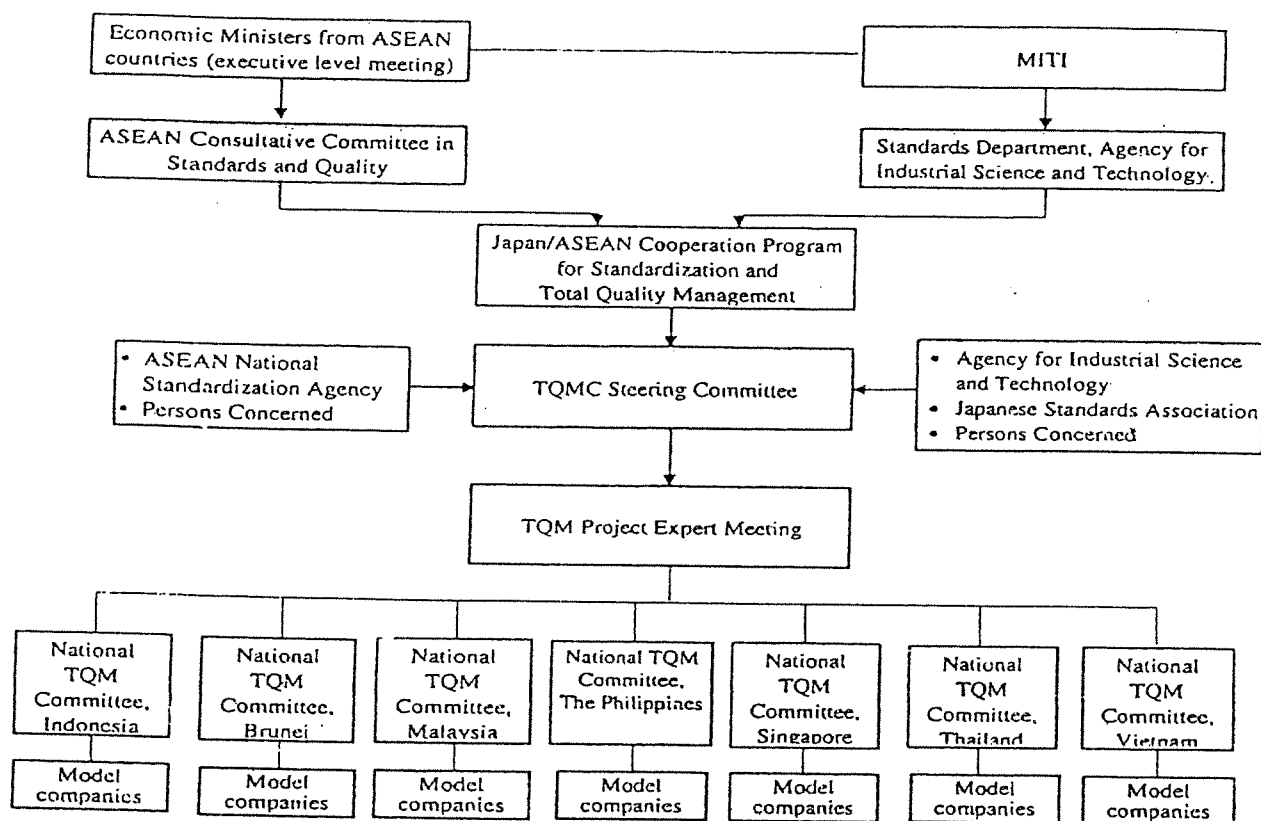
###### Level 5 (established knowledge)

The company is being optimally managed and controlled. The main issue the company faces is how to maintain this ideal situation.

##### Attachments;

Implementation Process of TQM, TQM Project, Progress Report, Implementation Schedule, Monitor of Progresses.

## Organization of ASEAN-Japan TQM Project (as of FY 1999)



**Fig. 1: Structure of the Japan/ASEAN Standardization and Quality Management Cooperation Program**

*Note: National TQM Committees are the administrative organizations of ASEAN countries composed of their respective national standardization agencies, model companies, and specialists.*

### Implementation organizations of the participating countries:

- Brunei : Construction Planning and Research Unit, Ministry of Development (CPRU)
- Indonesia : National Standardization Council of Indonesia (DSN)
- Malaysia : Standards and Industrial Research Institute of Malaysia Berhad (SIRIM)
- The Philippines : Bureau of Product Standards (BPS)
- Singapore : Singapore Productivity and Standards Board (PSB)
- Thailand : Thai Industrial Standards Institute (TISI)
- Vietnam : Directorate for Standards and Quality (STAMEQ)